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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,971	07/31/2003	Luciano Lenzini	060091.00206	1843
32294 7590 03/17/2009 SQUIRE, SANDERS & DEMPSEY L.L.P. 8000 TOWERS CRESCENT DRIVE 14TH FLOOR VIENNA, VA 22182-6212				
EXAMINER				
NGUYEN, KHAI MINH				
ART UNIT		PAPER NUMBER		
2617				
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03/17/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/630,971

**Applicant(s)**

LENZINI ET AL.

**Examiner**

KHAI M. NGUYEN

**Art Unit**

2617

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 17-20, 24, 25, 56 and 58-73 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-20, 24, 25, 56 and 58-73 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date 10/27/2008.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments filed 12/24/2008 have been fully considered but they are not persuasive.

Regarding claims 17-20, 24-25, 56, and 58-73, Applicant argues, of the remarks, that IEE in view of Laakso do not disclose, teach, or suggest "(1) granting means for granting a transmission capacity subscriber station-specific; (2) transmitting means for transmitting capacity grant messages to at least one subscriber station; (3) monitoring by the base station of at least one of capacity request messages received from the at least one subscriber station, capacity grant messages sent by a base station and data transmission received from the at least one subscriber stations. "

IEE in view of Laakso clearly disclose (1) granting means for granting a transmission capacity subscriber station-specific (see IEEE, pg.83, section 6.2.5 (specifying a scheduling service, the BS can anticipate the throughput and latency needs of the uplink traffic and provide polls and/or grants at the appropriate times to subscriber) and pg.86, section 6.2.6.1 (grant per subscriber station));

(2) transmitting means for transmitting capacity grant messages to at least one subscriber station (see IEEE, pg.86, section 6.2.6.1 and 6.2.6.3 (grants per subscriber station))

(3) monitoring by the base station (BS) (col.4, lines 21-31) of at least one of capacity request messages received from the at least one subscriber station (MS) (see

Laakso, abstract (lines 1-4), col.3, lines 38-43, and col.2, lines 24-25, uplink TPC command is a request power change at the base station), capacity grant messages sent by a base station (see Laakso, col.10, lines 15-32) and data transmission received from the at least one subscriber stations (see Laakso, col.2, lines 24-25, uplink TPC command is a request power change at the base station).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17-20, 24-25, 56, and 58-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over IEEE Std 802.16-2001 in view of Laakso (U.S.Pat-6671512).

Regarding claims 17 and 61, IEEE teaches an apparatus/a method, comprising:

granting means for granting a transmission capacity subscriber station-specific  
(pg.83, section 6.2.5);

transmitting means for transmitting capacity grant messages to at least one  
subscriber station (pg.86, section 6.2.6.1)

IEEE fails to specifically disclose monitoring by the base station of at least one of  
capacity request messages received from the at least one subscriber station, capacity

grant messages sent by a base station and data transmission received from the at least one subscriber stations.

However, Laakso teaches monitoring by the base station of at least one of capacity request messages received from the at least one subscriber station (abstract, col.4, lines 21-31), capacity grant messages sent by a base station (col.10, lines 15-32) and data transmission received from the at least one subscriber stations (col.2, lines 24-25, uplink TPC command is a request power change at the base station).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Laakso to IEEE to be minimizes collisions in the communication and reduces the number of retries needed for a successful transmission.

Regarding claim 18, IEEE and Laakso further teach the base station of claim 17, wherein the base station is configured to monitor data based on messages and transmissions using a memory table (see IEEE, table 58, pg.85, section 6.2.5-6.2.5.4).

Regarding claim 19, IEEE and Laakso further teach the base station of claim 17, wherein the base station is further configured to avoid a mismatch between a granted capacity (see Laakso, col.1, lines 45-52) and data received from a subscriber station using information based on request messages (see Laakso, col.1, lines 20-26), capacity grant messages and received transmissions (see Laakso, abstract, col.1, lines 20-26).

Regarding claims 20 and 64, IEEE teaches an apparatus/ a computer program embodied on a computer-readable medium, comprising:

first transmitting means for transmitting capacity request messages of at least one connection (pg.86, section 6.2.6.1);

receiving means for receiving capacity grant messages from a base station (pg.83, section 6.2.5);

IEEE fails to specifically disclose allocating means for allocating connection-specific a capacity granted by a base station; second transmitting means for transmitting messages, wherein the messages comprise information based on previous capacity requests of a subscriber station; and third transmitting means for transmitting data according to a capacity allocation made by the subscriber station.

However, Laakso teaches allocating means for allocating connection-specific a capacity granted by a base station (abstract, col.4, lines 21-31, col.10, lines 15-32); second transmitting means for transmitting messages (col.10, lines 15-32), wherein the messages comprise information based on previous capacity requests of a subscriber station (col.2, lines 24-25, uplink TPC command is a request power change at the base station); and third transmitting means for transmitting data according to a capacity allocation made by the subscriber station (col.10, lines 15-32)

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Laakso to IEEE to be minimizes collisions in the communication and reduces the number of retries needed for a successful transmission.

Regarding claims 24 and 66, IEEE teaches an apparatus/ a computer program embodied on a computer-readable medium, comprising:

a receiver configured to receive capacity request messages from at least one subscriber station (pg.86, section 6.2.6.1); and

a processor configured to,

grant a transmission capacity subscriber station-specific (pg.83, section 6.2.5), transmit capacity grant messages to the at least one subscriber station (pg.86, section 6.2.6.1); and

IEEE fails to specifically disclose monitoring request messages received from the at least one subscriber stations, capacity grant messages sent by a base station and data transmissions received from the at least one subscriber station.

However, Laakso teaches monitoring request messages received from the at least one subscriber stations (abstract, col.4, lines 21-31), capacity grant messages sent by a base station (col.10, lines 15-32) and data transmissions received from the at least one subscriber station (col.2, lines 24-25, uplink TPC command is a request power change at the base station).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Laakso to IEEE to be minimizes collisions in the communication and reduces the number of retries needed for a successful transmission.

Regarding claim 25, IEEE teaches an apparatus comprising:

a transmitter configured to transmit capacity request messages of at least one connection (pg.86, section 6.2.6.1); and

a processor configured to,

IEEE fails to specifically disclose allocate connection-specific a capacity granted by a base station; transmit message wherein the message comprise information on previous capacity request; and transmit data from a subscriber station according to a capacity allocation made by the subscriber station.

However, Laakso teaches allocate connection-specific a capacity granted by a base station (abstract, col.4, lines 21-31, col.10, lines 15-32); transmit message wherein the message comprise information on previous capacity request (col.2, lines 24-25, uplink TPC command is a request power change at the base station); and transmit data from a subscriber station according to a capacity allocation made by the subscriber station (col.10, lines 15-32).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Laakso to IEEE to be minimizes collisions in the communication and reduces the number of retries needed for a successful transmission.

Regarding claim 56, IEEE teaches a method, comprising:

transmitting capacity request messages of at least one connection (pg.86,



section 6.2.6.1);

receiving capacity grant messages from a base station (pg.83, section 6.2.5);  
connection-specifically allocating a capacity granted by the base station (pg.84,  
section 6.2.5.2);

IEEE fails to specifically disclose transmitting messages, wherein the messages comprise information based on previous capacity requests of a subscriber station; and for transmitting data according to a capacity allocation made by the subscriber station.

However, Laakso teaches transmitting messages (col.10, lines 15-32), wherein the messages comprise information based on previous capacity requests of a subscriber station(col.2, lines 24-25, uplink TPC command is a request power change at the base station); and for transmitting data according to a capacity allocation made by the subscriber station (col.10, lines 15-32).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teaching of Laakso to IEEE to be minimizes collisions in the communication and reduces the number of retries needed for a successful transmission.

Regarding claim 58, IEEE and Laakso further teach the method of claim 56, wherein the transmitting comprises transmitting an update message that replaces at the base station (see Laakso, col.2, lines 24-25) a previous information connection-specifically (see Laakso, col.2, lines 24-25 and col.10, lines 10-35).

Regarding claim 59, IEEE and Laakso further teach the method of claim 56,

wherein the transmitting comprises transmitting an update message that replaces information based on a need for bandwidth for a connection (see IEEE, pg.87, section 6.2.6.3).

Regarding claim 60, IEEE and Laakso further teach the method of claim 56, further comprising: transmitting update messages comprising information based on previous capacity requests (see Laakso, col.2, lines 24-25), wherein the update messages replace at the base station previous information on a connection (see Laakso, col.2, lines 24-25 and col.10, lines 10-35).

Regarding claim 62, IEEE and Laakso further teach the method of claim 61, further comprising: monitoring data based on messages and transmissions using a memory table (see IEEE, table 58, pg.85, section 6.2.5-6.2.5.4).

Regarding claim 63, IEEE and Laakso further teach the method of claim 61, wherein the monitoring comprises using information based on the request messages (see Laakso, abstract), the capacity grant messages (see Laakso, col.1, lines 20-26) and the received transmissions for avoiding a mismatch between a granted capacity and data received from a subscriber station (see Laakso, col.1, lines 45-52).

Regarding claim 65 is rejected with the same reasons set forth in claim 60.

Regarding claim 67, IEEE and Laakso further teach the computer program of claim 66, further comprising: receiving update messages comprising information based on previous capacity requests (see Laakso, col.2, lines 24-25), wherein the update messages replace previous information on a connection (see Laakso, col.2, lines 24-25

and col.10, lines 10-35).

Regarding claim 68 is rejected with the same reasons set forth in claim 62.

Regarding claim 69 is rejected with the same reasons set forth in claim 63.

Regarding claim 70 is rejected with the same reasons set forth in claim 60.

Regarding claim 71 is rejected with the same reasons set forth in claim 60.

Regarding claim 72 is rejected with the same reasons set forth in claim 63.

Regarding claim 73 is rejected with the same reasons set forth in claim 60.

### ***Conclusion***

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KHAI M. NGUYEN whose telephone number is (571)272-7923. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent P. Harper can be reached on 571.272.7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VINCENT P. HARPER/  
Supervisory Patent Examiner, Art Unit 2617

/Khai M Nguyen/  
Examiner, Art Unit 2617

3/11/2009